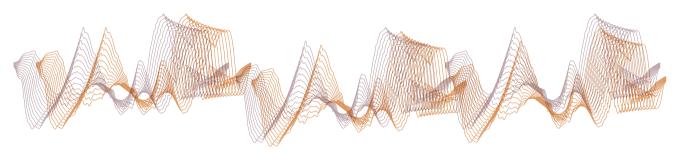
## ENERGY EBB & FLOW CYCLE

Biologically, our energy dips and crests throughout the day in a unique ebb and flow. As many of us have experienced, pushing against this natural rhythm to attempt 100% effort 100% of the time eventually leads to diminishing returns. As much as our industrialized culture would like us to believe that humans are biological machines, capable of maintaining an endless stream of energy and productivity through sheer willpower- this is simply not the case. Our energy adheres to an individualized rhythm which waxes and wanes throughout the day to balance expenditure and recovery.



The key is not maximizing your output, but rather leveraging you personal energy patterns to optimize your personal energy. This means learning to capitalize on your energy peaks and recognizing dips in your energy as necessary to attain those peaks again.



Our daily energy levels are driven in large part by our circadian rhythm, a well defined 24-hour internal clock. The circadian rythm governs a wide variety of internal processes such as body temperature regulation, hormone secretion, and most prominently, our regular sleep patterns. It mirrors the 24-hour cycle of the sun, although each person is in unique alignment to the 24-hour sun cycle.

The pace of a person's circadian rhythm results in an inclination towards either "morningness" or "eveningness". A rhythm that is slightly quicker than the 24-hour sun cycle results in peak performance in the morning. A slower paced rhythm results in peak energy levels at night.



The attribute of either "morningness" or "eveningness" is referred to as a person's chronotype. The following questionnaire allows you gauge your chronotype on the spectrum of morningness/ eveningness. Scheduling daily activities with this attribute in mind can help to harness maximum energy levels and accommodate for necessary recovery in your day. To complete the assessment, circle your answers to each of the questions below and add together your final score.

Questionnaire adapted from: Horne, J.A.; Östberg, O. (1976). A self-assessment questionnaire to determine morningness-eveningness in human circadian rhythms". Int J Chronobiol 4 (2): 97–110

- If you were entirely free to plan your day, what time would you wake up?
  - [5] 5:00 AM-6:30 AM
  - [4] 6:30 AM-7:45 AM
  - [3] 7:45 AM-9:45 AM
  - [2] 9:45 AM-11:00 AM
  - [1] 11:00 AM-12 noon
- 2 If you were entirely free to plan your day, what time would you go to bed?
  - [5] 8:00 PM-9:00 PM
  - [4] 9:00 PM-10:15 PM
  - [3] 10:15 PM-12:30 AM
  - [2] 12:30 AM-1:45 AM
  - [1] 1:45 AM-3:00 AM
- If you wake up at a specific time in the morning, how dependent are you on an alarm clock to wake up?
  - [4] Not at all
  - [3] Slightly
  - [2] Somewhat
  - [1] Very much



- Under regular conditions, how difficult is it for you to wake up in the morning?
  - [1] Very difficult
  - [2] Somewhat difficult
  - [3] Fairly easy
  - [4] Very easy
- You have decided to do physical exercise. A friend suggests that you do this for one hour twice a week. The best time for her is between 10-11 PM. Bearing in mind only your internal "clock," how well do you think you would perform?
  - [1] Would be in good form
  - [2] Would be in reasonable form
  - [3] Would find it difficult
  - [4] Would find it very difficult
- 6 How hungry do you feel during the first half hour after you wake up?
  - [1] Not at all hungry
  - [2] Slightly hungry
  - [3] Fairly hungry
  - [4] Very hungry
- You have decided to engage in some physical exercise. A friend suggests that you do this one hour a day, twice a week, between 7am and 8am. Bearing in mind nothing but your own internal "clock", how do you think you would perform?
  - [4] Would be in good form
  - [3] Would be in reasonable form
  - [2] Would find it difficult
  - [1] Would find it very difficult



- During the first half hour after you wake up in the morning, how do you feel?
  - [1] Very tired
  - [2] Fairly tired
  - [3] Fairly refreshed
  - [4] Very refreshed
- You want to be at your peak performance for a test that you know is going to be mentally exhausting and will last two hours. You are entirely free to plan your day. Considering only your "internal clock," which one of the four testing times would you choose?
  - [6] 8 AM-10 AM
  - [4] 11 AM-1 PM
  - [2] 3 PM-5 PM
  - [0] 7 PM-9 PM
- At what time in the evening do you feel tired enough to go to sleep?
  - [5] 8:00 PM-9:00 PM
  - [4] 9:00 PM-10:15 PM
  - [3] 10:15 PM-12:45 AM
  - [2] 12:45 AM-2:00 AM
  - [1] 2:00 AM-3:00 AM
- If you had no commitments the next day, what time would you go to bed compared to your usual bedtime?
  - [4] Seldom or never later
  - [3] Less that 1 hour later
  - [2] 1-2 hours later
  - [1] More than 2 hours later



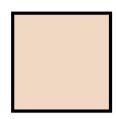
- If you got into bed at 11 PM, how tired would you be?
  - [O] Not at all tired
  - [2] A little tired
  - [3] Fairly tired
  - [5] Very tired
- If you were to go to bed a few hours later than usual, and could wake up any time the next morning, what would you most likely do the next day?
  - [4] Will wake up at usual time, but will not fall back asleep
  - [3] Will wake up at usual time and will doze thereafter
  - [2] Will wake up at usual time, but will fall asleep again
  - [1] Will not wake up until later than usual
- One night you have to remain awake between 4-6 AM in order to carry out a night watch. You have no time commitments the next day. Which one of the alternatives would suit you best?
  - [[1] Would not go to bed until the watch is over
  - [2] Would take a nap before and sleep after
  - [3] Would take a good sleep before and nap after
  - [4] Would sleep only before the watch
- You have two hours of hard physical work. You are entirely free to plan your day. Considering only your internal "clock," which of the following times would you choose?
  - [4] 8 AM-10 AM
  - [3] 11 AM-1 PM
  - [2] 3 PM-5 PM
  - [1] 7 PM-9 PM



- Suppose you can choose your own work hours. Assume that you work a five-hour day (including breaks), your job is interesting, and you are paid based on your performance. At approximately what time would you choose to begin?
  - [5] 5 hours starting between 4-8 AM
  - [4] 5 hours starting between 8-9 AM
  - [3] 5 hours starting between 9 AM-2 PM
  - [2] 5 hours starting between 2-5 PM
  - [1] 5 hours starting between 5 PM-4 AM
- At approximately what time of day do you usually feel your best
  - [5] 5-8 AM
  - [4] 8-10 AM
  - [3] 10 AM 5PM
  - [2] 5-10 PM
  - [1] 10 PM-5 AM
- How alert do you feel during the first half hour after you wake up in the morning?
  - [1] Not at all alert
  - [2] Slightly alert
  - [3] Fairly alert
  - [4] Very alert
- Do you consider yourself a "morning" or "evening" type?
  - [6] Definitely a morning type
  - [4] Rather more a morning type than an evening type
  - [2] Rather more an evening type than a morning type
  - [1] Definitely an evening type



**RESULTS:** To caculate your score, add the numbers corresponding to the answers you chose for each question. Enter the number in the box to the right.



16-30	31-41	42-58	59-69	70-86
Definite	Moderate	Intermediate	Moderate	Definite
Evening	Evening		Morning	Morning